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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,520	06/02/2006	Yasuyuki Kenmoku	291173US3PCT	3649

22850 7590 03/19/2009

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EXAMINER	
LOUIE, MANDY C	
ART UNIT	PAPER NUMBER
1792	

NOTIFICATION DATE	DELIVERY MODE
03/19/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/581,520	KENMOKU ET AL.	
	Examiner	Art Unit	
	MANDY C. LOUIE	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *08/18/06, 06/02/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogasawara [JP2003-144990].

Regarding claim 1, Ogasawara teaches a method for coating a surface of a vehicle body (object) by dividing the surface of the object to form a plurality of areas for coating, where each area is coated by at least one coater that reciprocates [abstract]. Such reciprocating coater follows a trajectory-coating path [abstract], which sequentially shifts the position of turning paths in either of the two reciprocating directions where such turning paths are like a series of steps [Fig. 2] to form a coating along the trajectory-coating path [abstract]. Ogasawara further teaches coating a different coating area (2L), which is adjacent to the said specific coating area (1L) where the turning paths are like a series of steps [Fig. 2]. Moreover, Ogasawara teaches it is known in the art to use a spray coater to coat such objects [0003].

Regarding claim 2, Ogasawara teaches the paint may be coated at a parallel transit path and suspended (cut) at the return path (turning path) of the trajectories during reciprocation [abstract].

Regarding claim 3, Ogasawara teaches the object may be conveyed to a determined direction [0018; Fig. 1], where the coater reciprocates in a direction substantially parallel to the conveying direction of said object to be coated where said locations of the turning paths are shifted from the front side to the rear side [Fig. 1 & 2].

3. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Baba [JP06-262564].

Regarding claim 1, Baba teaches a method for coating by teaching a painting robot [0001] to coat onto a surface of an object [Fig. 5], where the coating surface is divided into a plural number of coating areas coated by at least one spray painting machine [0005]. Baba further teaches at least one of the painting robots follows a trajectory that sequentially shifts the position of turning path in one of two directions for reciprocation, which resembles a series of steps [Fig. 5] for coating the surface of the object [0016], and also teaches sequentially shifting the positions of the turning path to avoid overlapping with the turning paths [Fig.5] and robot interference [0050], and coating a different coating area along a coating trajectory (A) which is adjacent to the said coating area along another coating trajectory (B) in a series of step-like turning paths [Fig. 5].

Alternatively, it would have been obvious that a method of teaching a robot a coating method may also be interpreted as a coating method for coating a surface since both methods involve coating a surface of an object.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baba in view of Naoki [Teachingless Spray-Painting of Sculptured Surface by an Industrial Robot].

Teaching of Baba is aforementioned and further teaches coating may be preformed at a parallel transit path of the coating trajectory [Baba, Fig. 5], but is silent of the paint being sprayed is cut at the turning paths during reciprocation. Naoki remedies this.

Regarding claim 2, Naoki teaches stopping (cutting) the spraying of paint at the turning path during reciprocation [pg 1877, sec. 3.3]. It would have been obvious to one with ordinary skill in the art at the time of the invention to cut paint spraying at the turning path. One would have been motivated to do so to reduce waste of coating material [Naoki, pg 1877, sec. 3.3].

5. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baba in view of Kikuchi [US 4714044], or Kikuchi in view of Baba.

Teaching of Baba is aforementioned, but is silent to providing a conveying means in a predetermined direction. Kikuchi remedies this.

Regarding claim 3, Kikuchi teaches a painting apparatus for a vehicle body (object) [abstract] which is conveyed in the longitudinal (predetermined) direction [col 2, ln 11-12; Fig.1]. It would have been obvious to one with ordinary skill in the art at the time of the invention to convey the object in a predetermined direction during coating. One would have been motivated to do so to improve productivity and reduce costs for operations [Kikuchi, col 5, ln 53-56; 62-64].

Moreover, Kikuchi teaches painting the side surface of the vehicle [Fig. 8d] by a painting robot [col 4, ln 58-60] which is capable of 3-axis movement [col 3, ln 1], where it would have been obvious to one with ordinary skill in the art to teach the painting robot

the coating method taught by Baba when painting the side of the vehicle. One would have been motivated to do so to simplify the programming of the painting robots [Baba, 0011], and increase coating efficiency and throughput. Furthermore, it would have been apparent to one with ordinary skill in the art that the trajectory path taught by Baba, when translated to the side surface of the vehicle, would be capable of reciprocating in a direction substantially parallel to the conveying direction from the front side to the rear side.

Regarding claim 1, teaching of the aforementioned prior art is also applied to the instant claim.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-3 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1-2, 5 of copending Application No. 10/581297 (hereinafter '297) in view of Baba.

'297 is silent of sequentially shifting the positions of the turning path to avoid overlapping with the turning paths within the coated area. Baba remedies this.

Teaching of Baba is aforementioned. It would have been obvious to one with ordinary skill in the art to teach the painting robot the coating method taught by Baba. One would have been motivated to do so to simplify the programming of the painting robots [Baba, 0011], and increase coating efficiency and throughput.

This is a provisional obviousness-type double patenting rejection.

Conclusion

1. No claim is allowed.

2. Claims 1-3 are rejected for the reasons aforementioned.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MANDY C. LOUIE whose telephone number is (571)270-5353. The examiner can normally be reached on Monday to Friday, 7:30AM - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571)272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. C. L./
Examiner, Art Unit 1792

/Timothy H Meeks/
Supervisory Patent Examiner, Art Unit 1792